

# Research & Policy Brief Series

## Conservation and Land Use: Engaging Municipal Officials in Improving Natural Resource-Based Planning

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### What is the Issue?

New York State's (NYS) Hudson River Estuary watershed contains many unique and high-quality ecological communities. Although the watershed is only 13.5% of NYS's land area, 85% of the state's bird, mammal, reptile, and amphibian species occur here<sup>1</sup>. Situated between New York City and Albany, the watershed is also home to nearly three million people. Population growth and sprawling development patterns have stressed the watershed's natural systems<sup>ii</sup>. Land use planning is a key step toward balancing future growth and development with protection of natural resources. The responsibility for conservation and planning often falls to the watershed's 260 towns, cities, and villages.

In 2001, the NYS Department of Environmental Conservation's Hudson River Estuary Program partnered with Cornell University to address the key biodiversity threat of habitat loss and fragmentation not being met by existing laws and programs. With funding from the NYS Environmental Protection Fund<sup>iii</sup>, extension staff at Cornell's Department of Natural Resources developed a comprehensive outreach program called the Conservation and Land Use Program to help communities respond to the challenge of incorporating natural resource protections into land use decisions.

### The Conservation and Land Use Program

To help municipal decision makers better understand and act on the critical link between conservation science and land use practice, the Conservation and Land Use Program delivers tools, training, funding, and technical assistance.

Initial outreach to local officials focused on raising awareness of the watershed's biodiversity, sharing biological data, and providing guidance on why and how to use the data. Today, the program aims to build local decision makers' capacity to improve community resilience and maintain ecological integrity by adopting land use procedures, plans, and policies that protect natural resources.

The program's primary audience

includes appointed volunteers on planning and zoning boards, conservation advisory councils, and open space commissions who make decisions about local land use and conservation. Planning boards have a land use control function, primarily reviewing development proposals to ensure they meet the standards set by local policies. Zoning boards hear appeals of land use decisions and determine if exceptions can be granted. Conservation advisory councils are authorized by NYS law to advise municipal legislatures on natural resource issues and often support the work of planning boards. Open space committees develop open space plans and recommend the purchase of properties identified in the plans. Local land use decision makers from 132 of the 260 municipalities in the watershed have used the program's outreach tools to build capacity for natural resource-based planning.

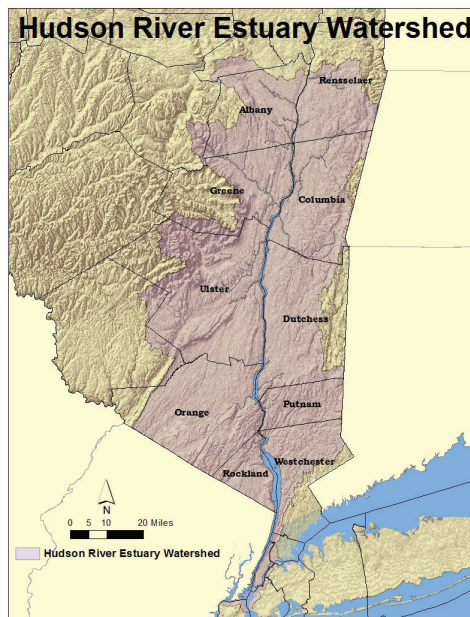
### Updating Municipal Procedures, Plans, and Policies

The long-term goal of the Conservation and Land Use Program is to increase the number and quality of land use procedures, plans, and policies that support biodiversity and resilience at the local level. *Procedures* are changes in practice that do not require approval by the municipal legislature. Often used by planning boards, procedures can be as simple as using additional natural

resource information to inform project reviews by the planning board, or creating a site plan checklist to standardize the questions asked as part of the review.

*Plans* create a blueprint for the future of the municipality; inventories that take stock of the towns' resources are usually a component of plans. Comprehensive plans are the most common type, which guide community growth and development, and are the legal basis for all other land use policies and decisions. Other plans or inventories useful for conserving biodiversity are open space plans, natural resource inventories, and intermunicipal watershed plans.

*Policies* refer to local laws approved by the municipal legislature. The most common local land use policy is zoning, which determines the use, density, and siting of development throughout a municipality. Other local policies that can be adapted to promote biodiversity conservation include subdivision regulations, site plan review, local wetland or watercourse laws, dedicated open space funding, and conservation advisory councils.



The Hudson River Estuary Program helps people enjoy, protect, and revitalize the tidal Hudson and its watershed. The tidal Hudson River Estuary is 153 miles of the 315 mile-long Hudson River, from the Verrazano Narrows in New York City to the Federal Dam at Troy.

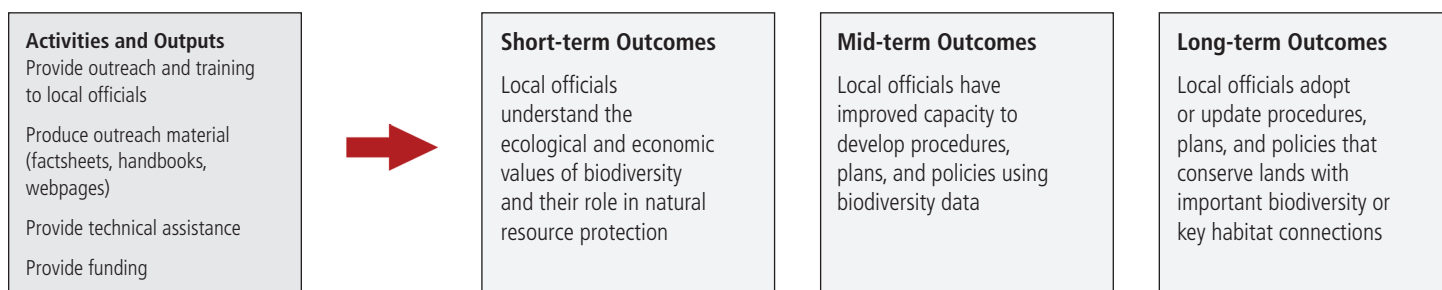
<sup>1</sup> Cornell University Department of Natural Resources and Hudson River Estuary Program

<sup>2</sup> Cornell University Human Dimensions Research Unit

<sup>iii</sup> Penhollow, M. E., P. G. Jensen, and L. Zucker. 2006. Wildlife and Conservation Framework: An Approach for Conserving Biodiversity in the Hudson River Estuary Corridor. New York Cooperative Fish and Wildlife Research Unit and New York State Department of Environmental Conservation, Hudson River Estuary Program, Ithaca, N.Y. 139pp.

<sup>ii</sup> Pendall, R. 2003. Sprawl Without Growth: The Upstate Paradox. The Brookings Institution, Washington, DC.

<sup>iii</sup> Funding for the Conservation and Land Use Program and this brief comes from the NYS Environmental Protection Fund as administered by the NYS Department of Environmental Conservation.



**Simplified logic model used by the Conservation and Land Use Program.** The program delivers tools, training, and assistance to support short-, mid-, and long-term outcomes to improve local decision making and foster conservation action at the local level.

## Assistance for Land Use Decision Makers

To support the creation and adoption of conservation-friendly municipal procedures, plans, and policies, Conservation and Land Use Program staff develop and deliver an array of tools, training, and assistance opportunities for local officials. A wide variety of extension approaches help meet the needs of diverse municipalities in the watershed, which range from industrial river cities to New York City bedroom communities and rural towns.

**Natural Resource-based Planning Tools:** To raise audience awareness and access to effective forms of information, program staff and partners produce tools, publications, and web material on natural resources and land use planning based on the needs of the audience. We continually strive to make the information easier to use. For example, to make the New York Natural Heritage Program's rare animal, rare plant, and significant ecosystem data more useful to local planners, the Hudson River Estuary Program supported the development of an "Important Areas" GIS data set and conservation guides to identify key conservation areas and management strategies. Such tools are more useful for a municipal planning board than data alone.

**Outreach and Training:** Staff deliver several levels of outreach and trainings to fit the needs of key audiences. Short-duration (one day or less) trainings provide information and raise awareness of the program's tools and how to use them. Short programs often focus on a single topic and share successful models from estuary watershed municipalities. For example, a series of workshops was offered on tools and procedures that could be used to conserve habitat during local environmental review; nearly 200 planning officials and community leaders attended. Other short-duration programs include roundtables with expert speakers and peer-networking opportunities on a topic of interest such as open space financing.

More in-depth, multi-day trainings provide the opportunity for participants to build technical skills. For example, from 2001-2009, the program partnered with Hudsonia to offer 10-month trainings in habitat mapping, principles of biodiversity conservation, and techniques for effective on-the-ground conservation. In total, over 185 volunteers from 27 community groups completed the training, mapping over 125,000 acres of habitat in 38 estuary watershed municipalities.

**Technical Assistance:** When communities are ready to create new local procedures, plans, or policies, their local officials

often request personalized assistance. Our program staff most often provide reports on significant natural resources, feedback on draft plans, or GIS data. For example, "Habitat Summaries" are customized reports that identify a community's forests, wetlands, and rare plants, animals, and other important resources, and are provided by request to inform municipal land use and conservation strategies.

**Financial Assistance:** Some municipalities need funding to successfully incorporate natural resource protections into land use practices. NYS Hudson River Estuary Grants have funded open space plans, natural resource inventories, and regional conservation plans in the watershed. For example, the Town of Pleasant Valley in Dutchess County created an award-winning open space plan with an Estuary Grant and technical assistance. As another example, the Rensselaer Plateau Alliance used funding and technical assistance to create a regional conservation plan that engaged all 11 municipalities that share a 105,000-acre forest on the plateau.



Photo courtesy of the Hudson River Estuary Program.

## Conservation and Land Use Outcomes

Local land use decision makers from over half of the municipalities in the Hudson River Estuary watershed have participated in the Conservation and Land Use Program. Recently, program staff worked with Cornell's Human Dimensions Research Unit to evaluate how participants applied what they learned from the program, what factors contributed to procedure, plan, and policy adoption, and what barriers prevented participants from using program assistance. The survey of 253 past participants revealed that most found the assistance useful or very useful for their work in land use planning, and that many applied what they learned: 76% of respondents used program assistance to update municipal procedures, 77% updated municipal plans, and 67% updated policies. Detailed evaluation results with lessons learned for educators and municipal officials are available in Issue 70 of this Research & Policy Brief series.

